2021-20 "OMENZOOT

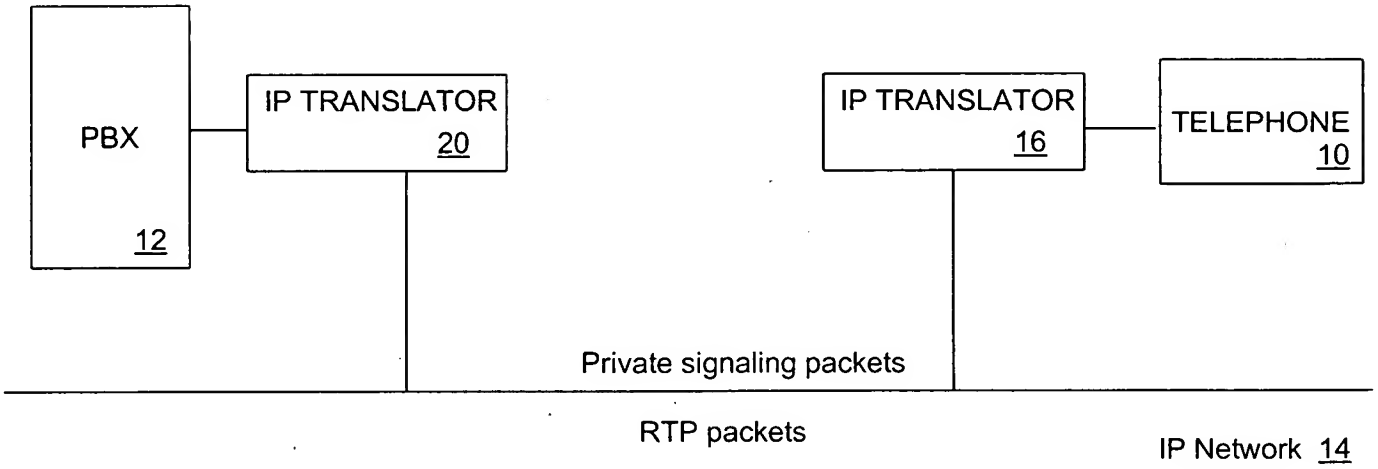

FIG. 1
(PRIOR ART)

Attorney: Josephine E. Chang
Docket No.: 47397/JEC/X2/134087
Inventor(s): Michael Wengrovitz
Title: ARCHITECTURE FOR TRANSPORTING PBX SIGNALING CODES VIA SIP
Sheet 1 of 13

20020820 04E4007

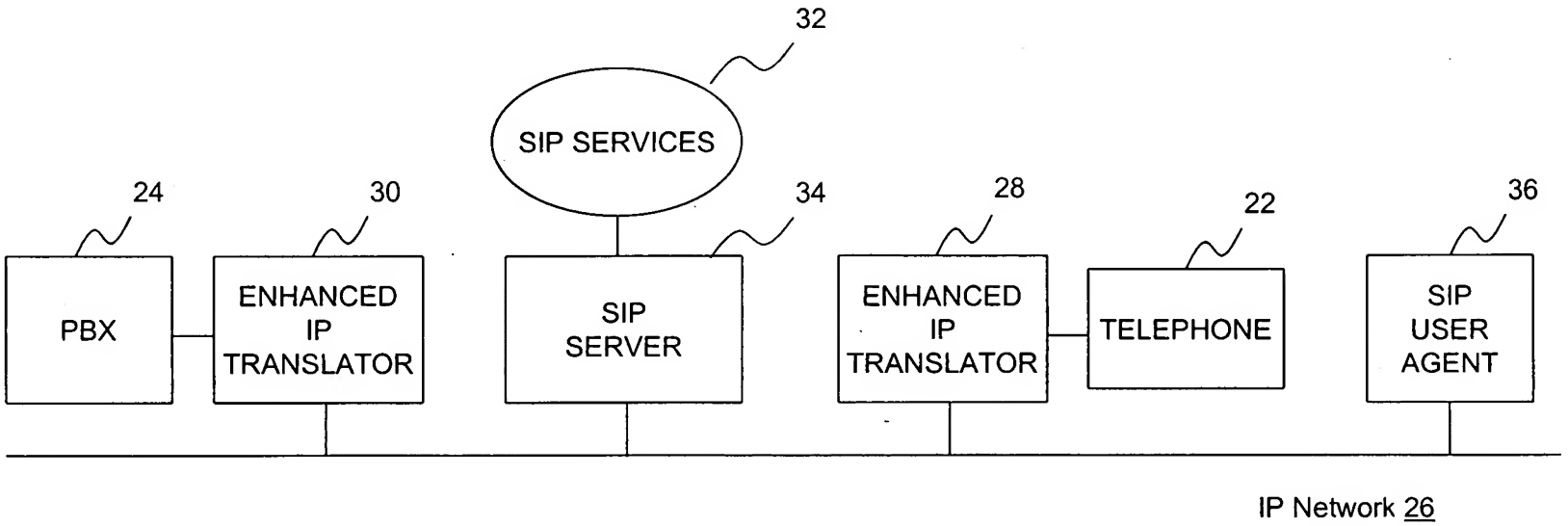

FIG. 2

Attorney: Josephine E. Chang
Docket No.: 47397/JEC/X2/134087
Inventor(s): Michael Wengrovitz
Title: ARCHITECTURE FOR TRANSPORTING PBX SIGNALING CODES VIA SIP
Sheet 2 of 13

20020" 0HE4700T

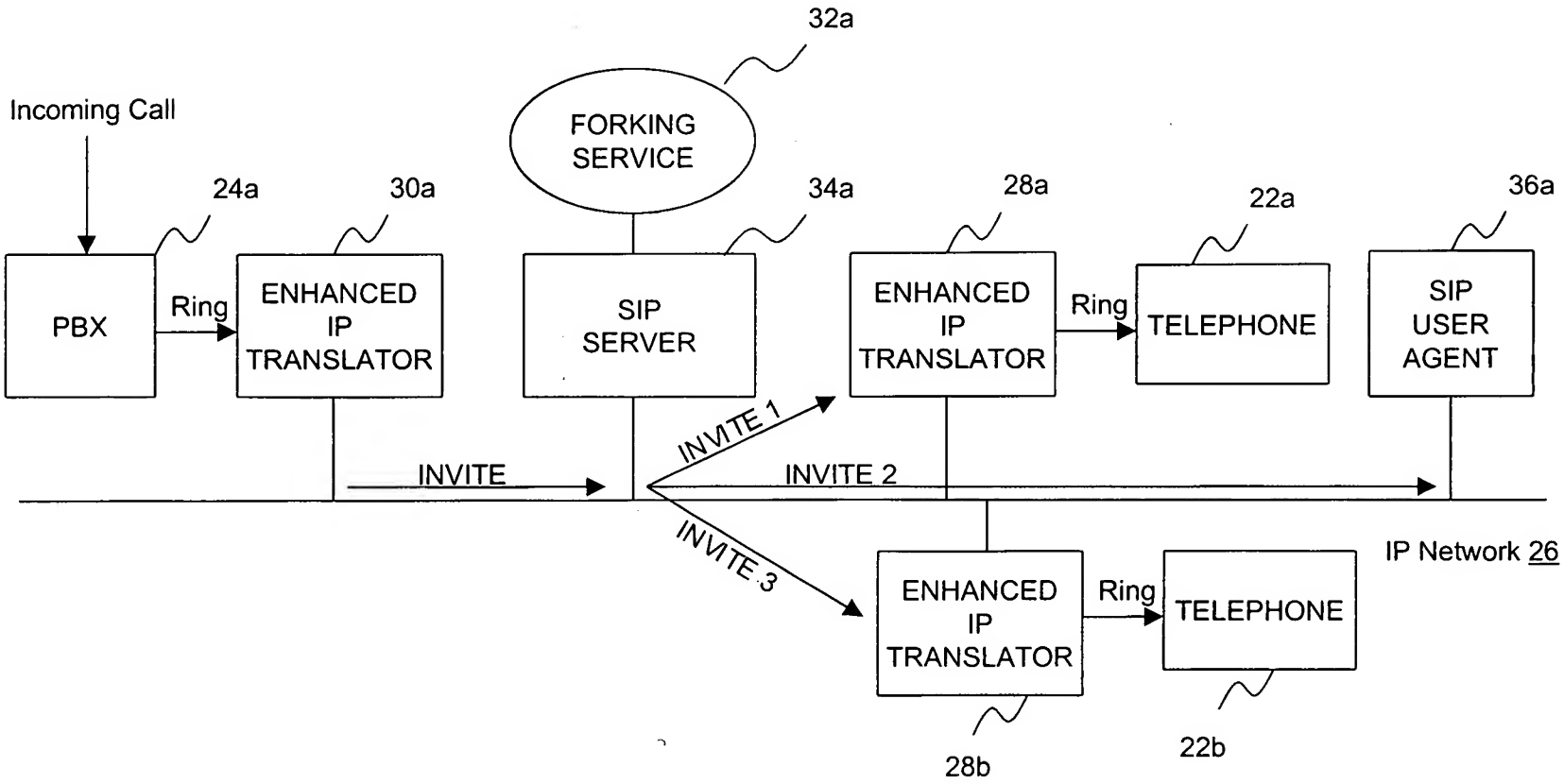

FIG. 3

Attorney: Josephine E. Chang
Docket No.: 47397/JEC/X2/134087
Inventor(s): Michael Wengrovitz
Title: ARCHITECTURE FOR TRANSPORTING PBX SIGNALING CODES VIA SIP
Sheet 3 of 13

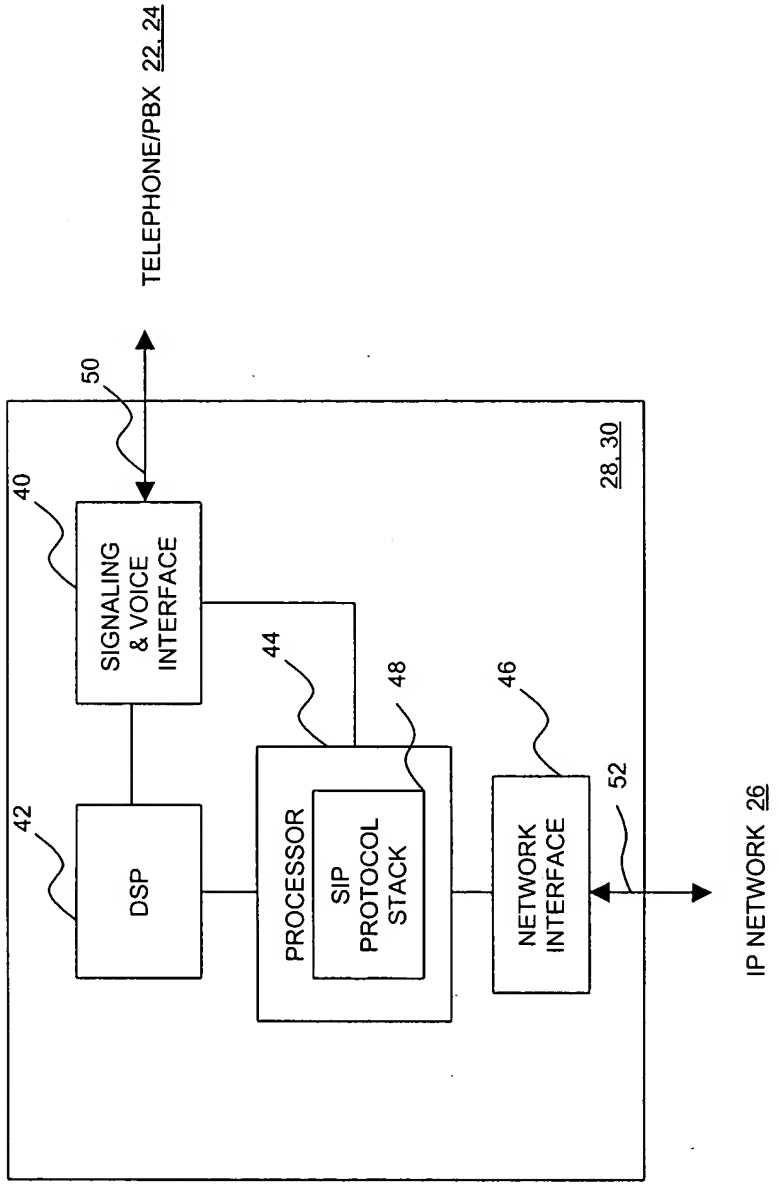
TELEPHONE/PBX 22, 24
50
28, 30
40
SIGNALING & VOICE INTERFACE
44
48
46
42
DSP
PROCESSOR
SIP PROTOCOL STACK
NETWORK INTERFACE
52
IP NETWORK 26

FIG. 4

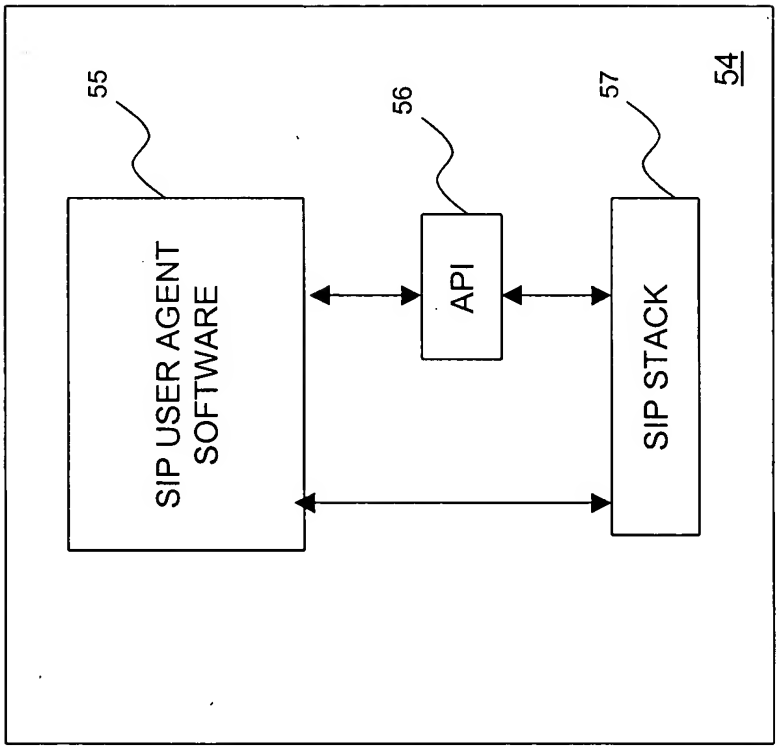

FIG. 5

20020720 0HE47007

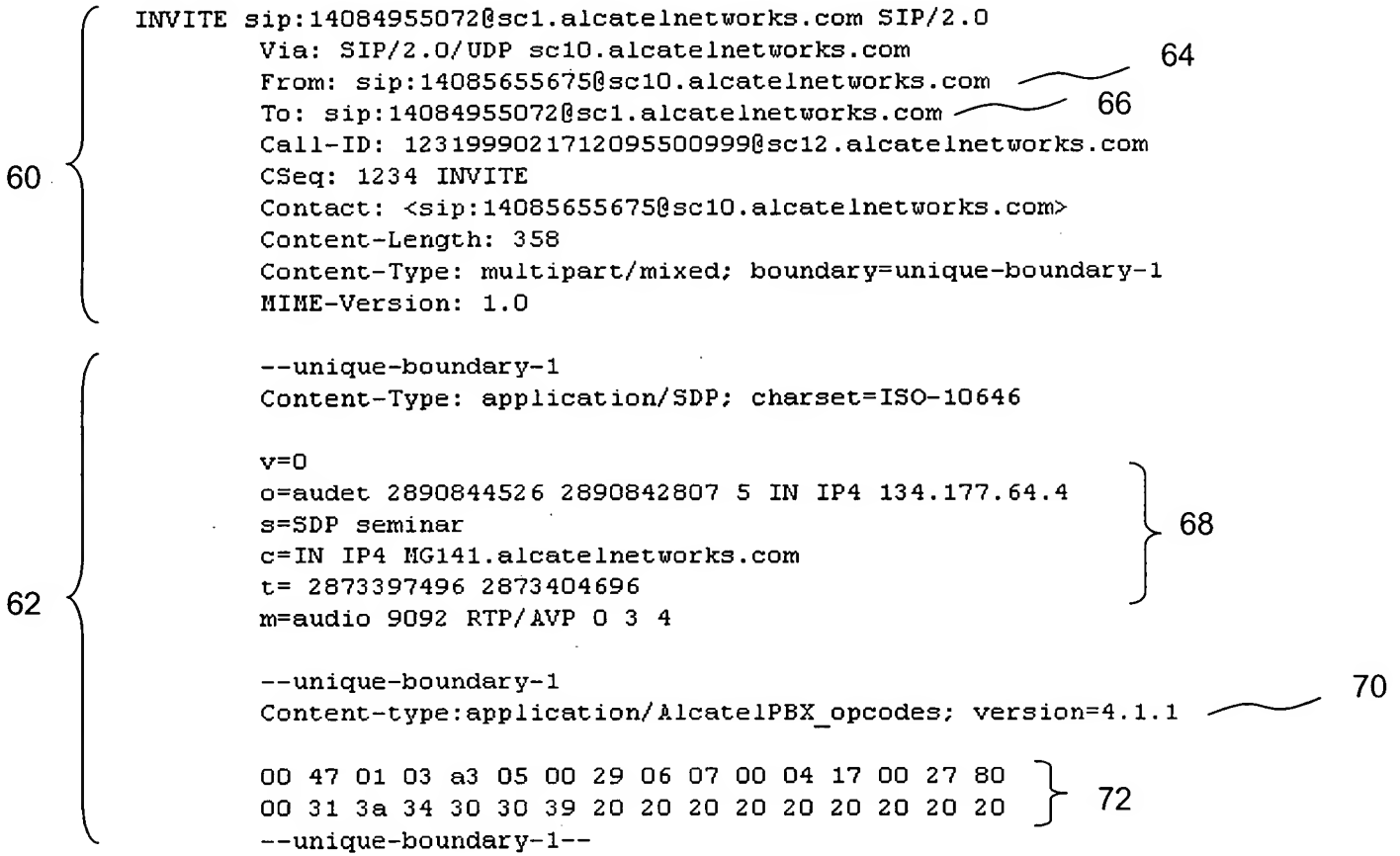

FIG. 6A

Attorney: Josephine E. Chang
Docket No.: 47397/JEC/X2/134087
Inventor(s): Michael Wengrovitz
Title: ARCHITECTURE FOR TRANSPORTING PBX SIGNALING CODES VIA SIP
Sheet 6 of 13

2007-20" 04:42:07

```
INVITE sip:14084955072@sc1.alcatelnetworks.com SIP/2.0
        Via: SIP/2.0/UDP sc10.alcatelnetworks.com
        From: sip:14085655675@sc10.alcatelnetworks.com
        To: sip:14084955072@sc1.alcatelnetworks.com
        Call-ID: 123199902171209550099@sc12.alcatelnetworks.com
        CSeq: 1234 INVITE
        Contact: <sip:14085655675@sc10.alcatelnetworks.com>
        Content-Length: 389
        Content-Type: multipart/mixed; boundary=unique-boundary-1
        MIME-Version: 1.0

        --unique-boundary-1
        Content-Type: application/SDP; charset=ISO-10646

        v=0
        o=audet 2890844526 2890842807 5 IN IP4 134.177.64.4
        s=SDP seminar
        c=IN IP4 MG141.alcatelnetworks.com
        t= 2873397496 2873404696
        m=audio 9092 RTP/AVP 0 3 4

        --unique-boundary-1
        Content-type:application/AlcatelPBX_mnemonic_set1.6.1; version=4.1.1

        icon1=steady_flash;voicemode=ringing;tune=7;cadence=standard;volume=0
        display_line1=4009 is calling;
        --unique-boundary-1--
```

60, 62, 64, 66, 68, 70, 72

FIG. 6B

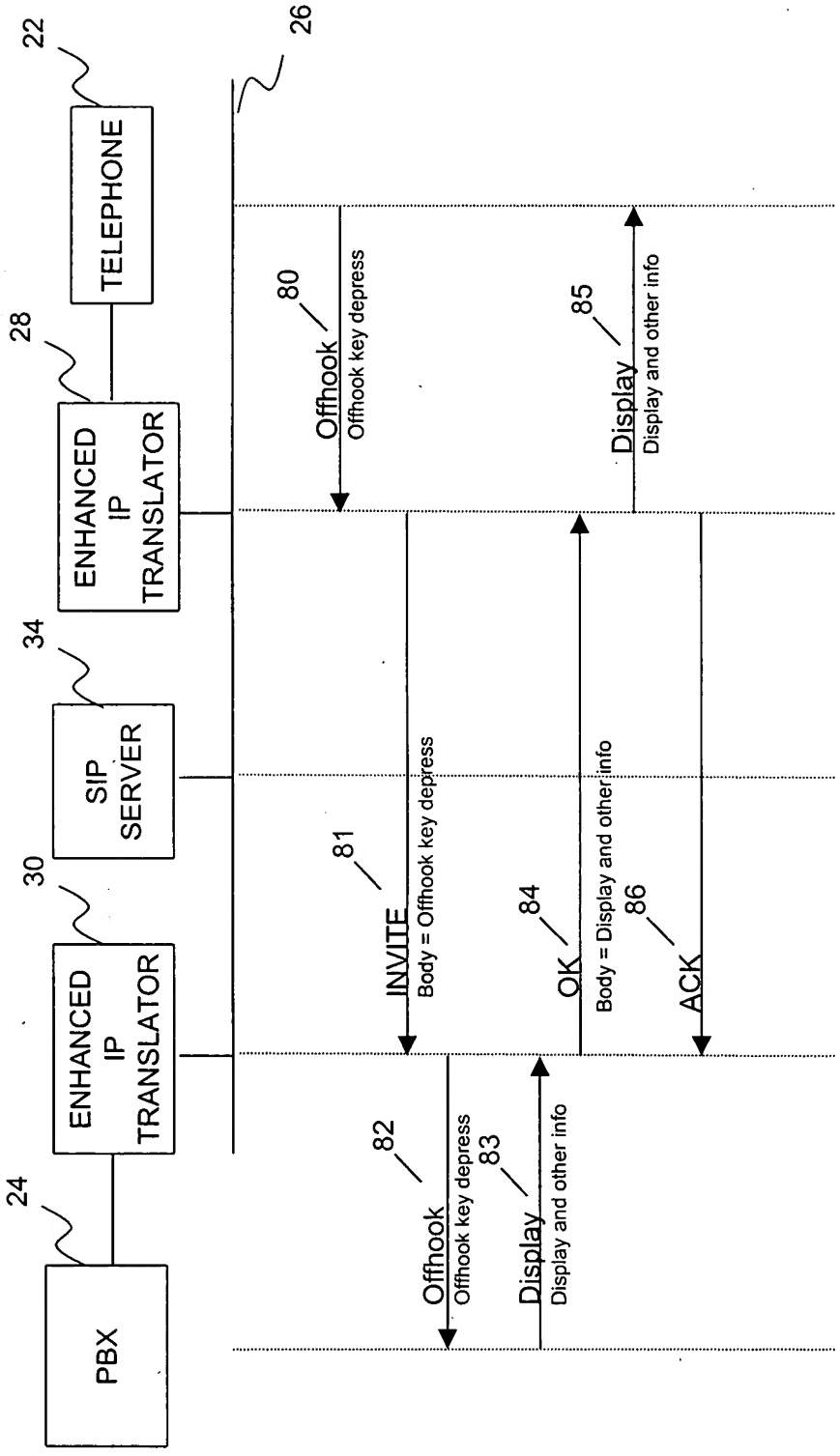
22
TELEPHONE
26
28
ENHANCED IP TRANSLATOR
80
Offhook
Offhook key depress
85
Display
Display and other info
34
SIP SERVER
81
INVITE
Body = Offhook key depress
84
OK
Body = Display and other info
86
ACK
30
ENHANCED IP TRANSLATOR
82
Offhook
Offhook key depress
83
Display
Display and other info
24
PBX

FIG. 7A

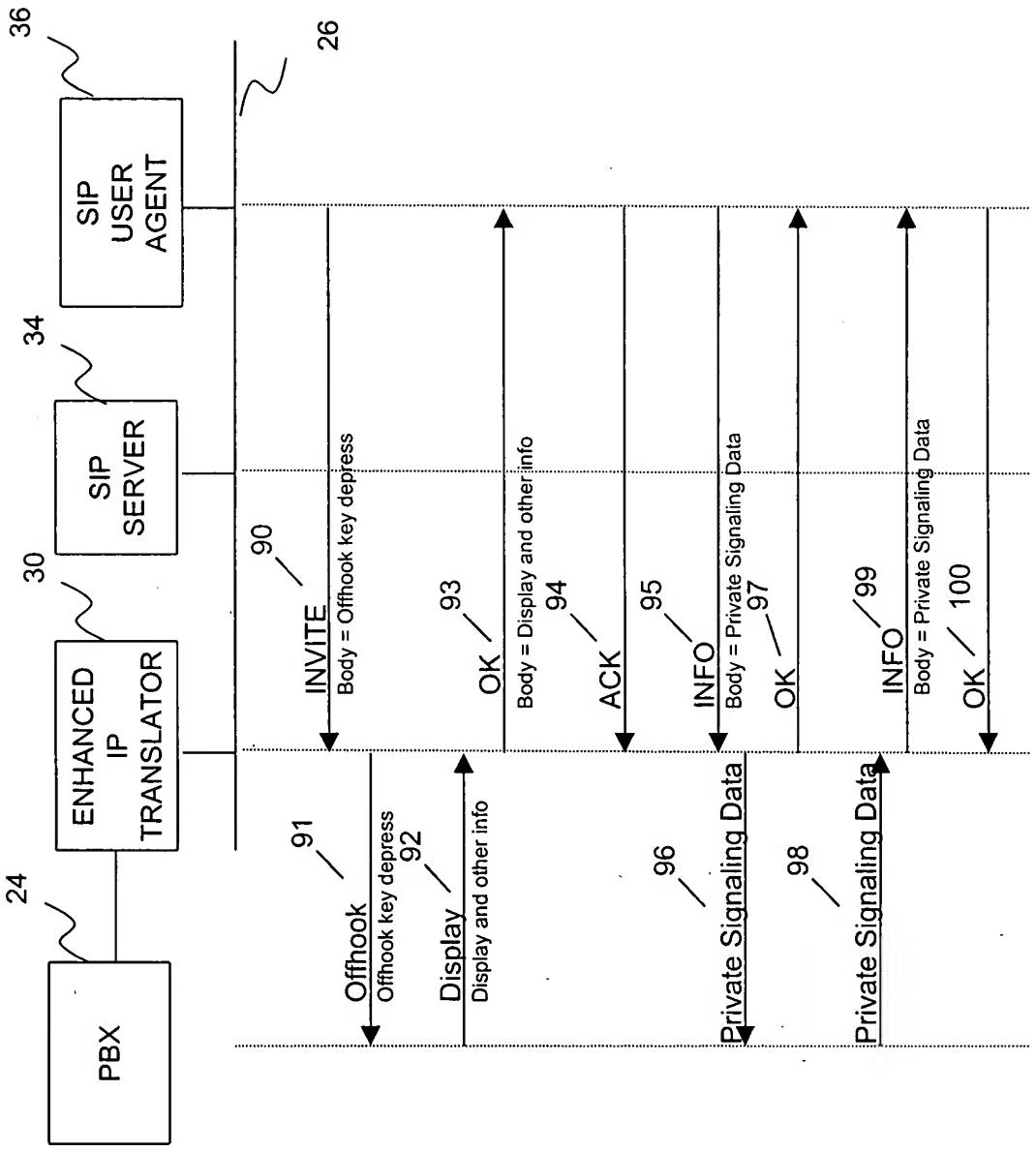
PBX
24
ENHANCED IP TRANSLATOR
30
SIP SERVER
34
SIP USER AGENT
36
26
90
INVITE
Body = Offhook key depress
91
Offhook
Offhook key depress
92
Display
Display and other info
93
OK
Body = Display and other info
94
ACK
95
INFO
Body = Private Signaling Data
96
Private Signaling Data
97
OK
98
Private Signaling Data
99
INFO
Body = Private Signaling Data
100
OK

FIG. 7B

2021 20 Oct 2007

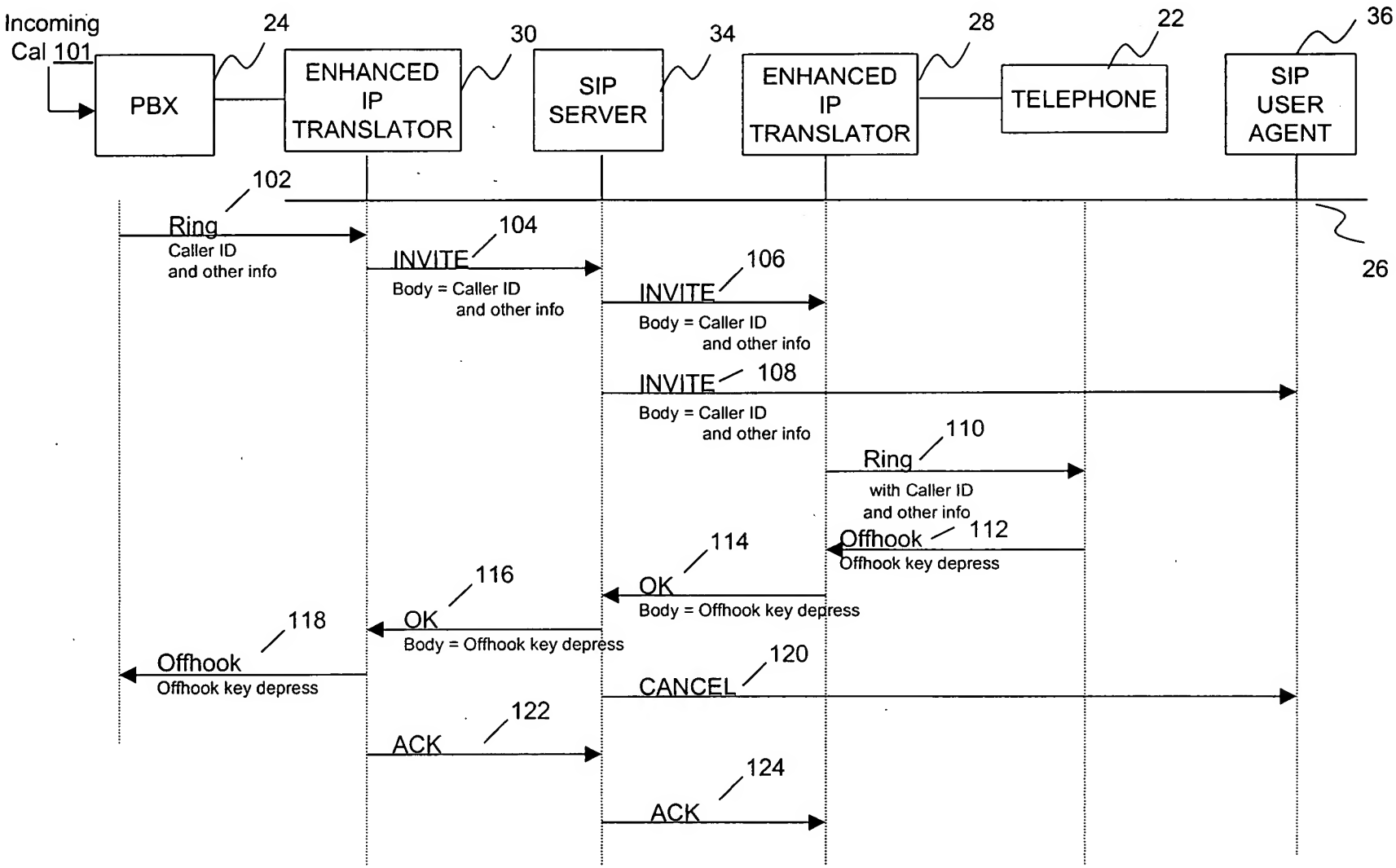

FIG. 8

Attorney: Josephine E. Chang
Docket No.: 47397/JEC/X2/134087
Inventor(s): Michael Wengrovitz
Title: ARCHITECTURE FOR TRANSPORTING PBX SIGNALING CODES VIA SIP
Sheet 16 of 13

20120404007

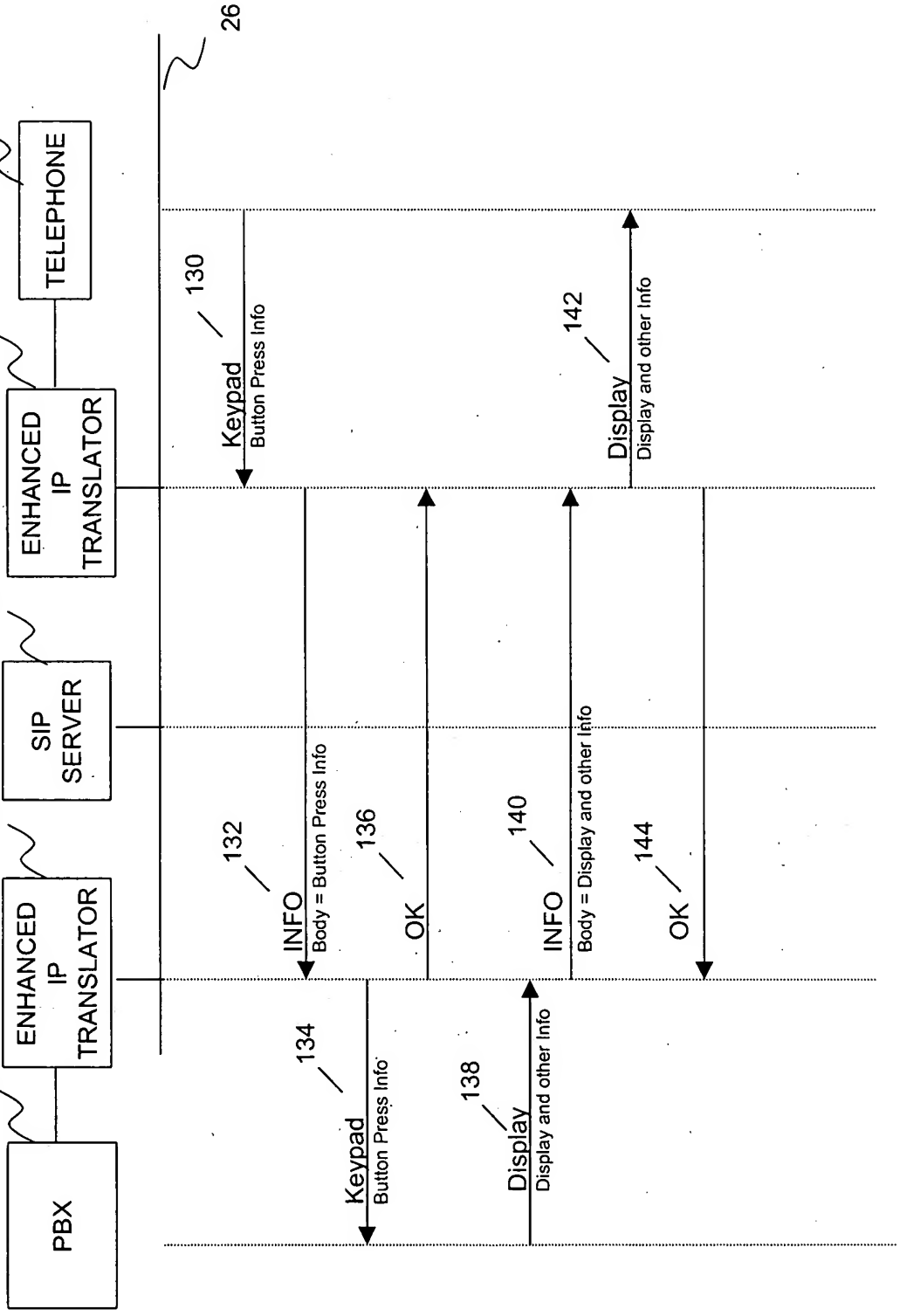

FIG. 9

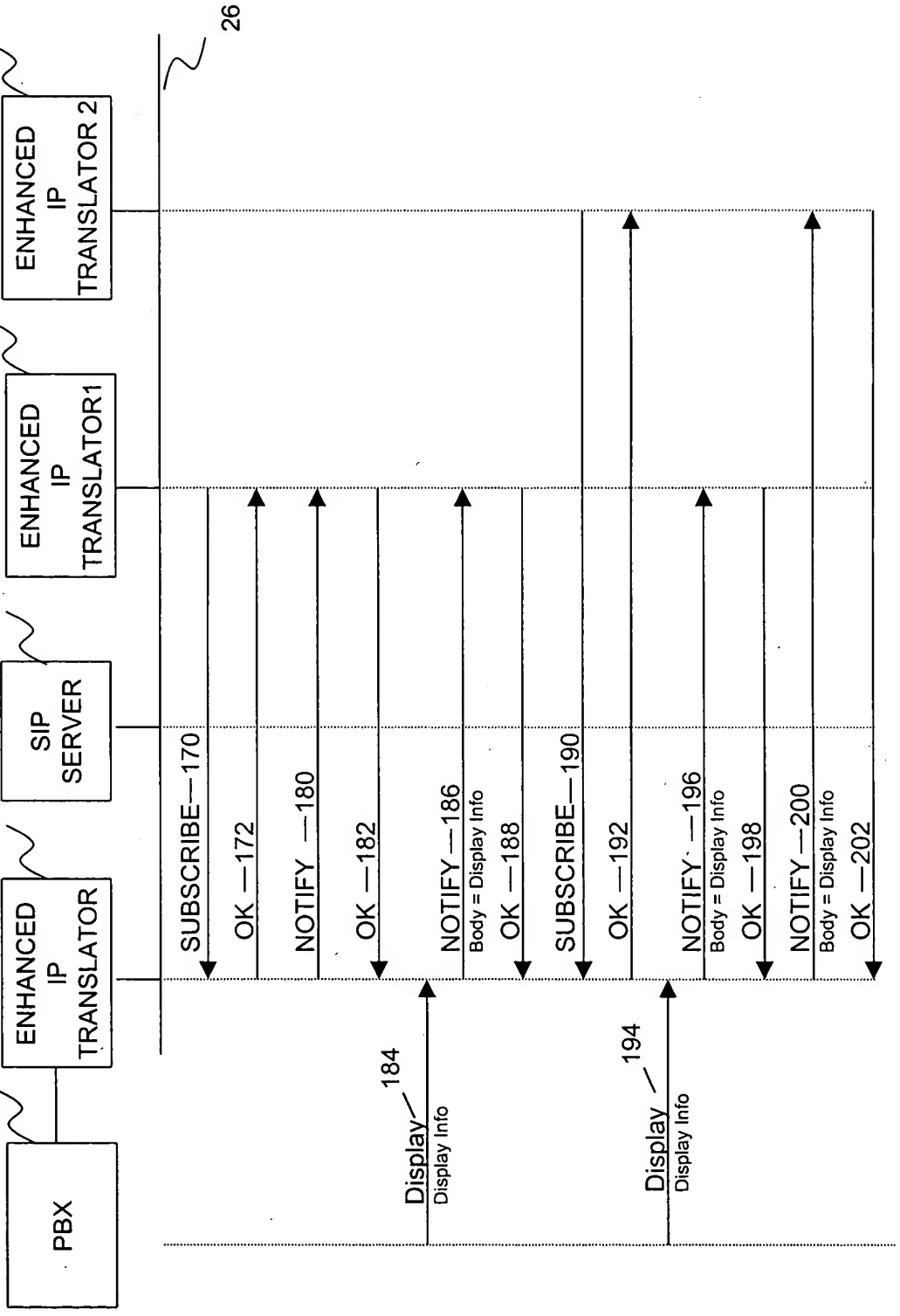
PBX
24
ENHANCED IP TRANSLATOR
30
SIP SERVER
34
ENHANCED IP TRANSLATOR1
28a
ENHANCED IP TRANSLATOR 2
28b
26
SUBSCRIBE 170
OK 172
NOTIFY 180
OK 182
NOTIFY 186
Body = Display Info
OK 188
SUBSCRIBE 190
OK 192
NOTIFY 196
Body = Display Info
OK 198
NOTIFY 200
Body = Display Info
OK 202
Display 184
Display Info
Display 194
Display Info

FIG. 10

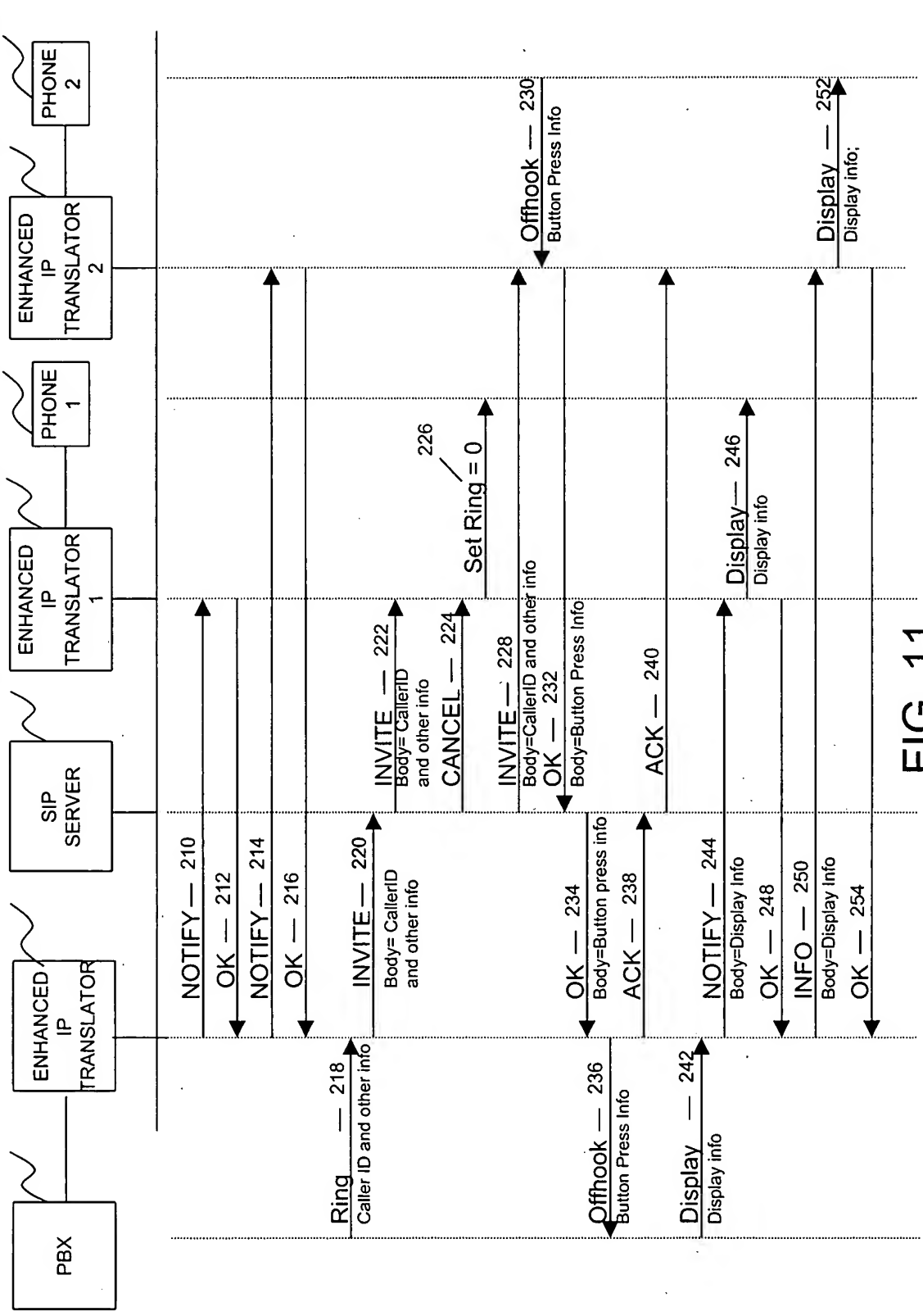
PBX
24
ENHANCED IP TRANSLATOR
30
SIP SERVER
34
ENHANCED IP TRANSLATOR 1
28a
ENHANCED IP TRANSLATOR 2
28b
PHONE 1
22a
PHONE 2
22b
NOTIFY — 210
OK — 212
NOTIFY — 214
OK — 216
INVITE — 220
Body= CallerID and other info
Ring — 218
Caller ID and other info
INVITE — 222
Body= CallerID and other info
CANCEL — 224
Set Ring = 0
226
INVITE — 228
Body=CallerID and other info
OK — 232
Body=Button Press Info
Offhook — 230
Button Press Info
OK — 234
Body=Button press info
ACK — 238
Offhook — 236
Button Press Info
ACK — 240
NOTIFY — 244
Body=Display Info
OK — 248
Display — 242
Display info
Display — 246
Display info
INFO — 250
Body=Display Info
OK — 254
Display — 252
Display info:

FIG. 11